

A NEW SPECIES OF *PEDICELLINA* FROM SYDNEY HARBOUR.

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(With One Text Figure).

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The only species of the endoproct Polyzoan genus *Pedicellina* recorded from Australia, as far as we are aware, is *P. cernua*, the identification having been made by Whitelegge (1889, p. 293), who collected his material under stones in Sydney Harbour. About twelve years ago, one of us obtained specimens in similar situations between tide marks at Middle Harbour and Watson's Bay, Port Jackson. An examination of the material has led us to regard the Sydney *Pedicellina* as belonging not to *P. cernua* but to a closely-related new species, *P. whiteleggii*, named in honour of Mr. Thomas Whitelegge, who did so much to further the study of the invertebrate fauna of New South Wales.

The new species resembles the European one in its general habit and structure. From the creeping stolon, devoid of spines, there are given off stems well provided with spines throughout their length, these stems terminating in calyces in various stages of development or regeneration. The spines are much shorter than those of *P. cernua*. In the latter, the distal portion of the stem is generally more or less devoid of spines, a point of difference between it and the Australian species.

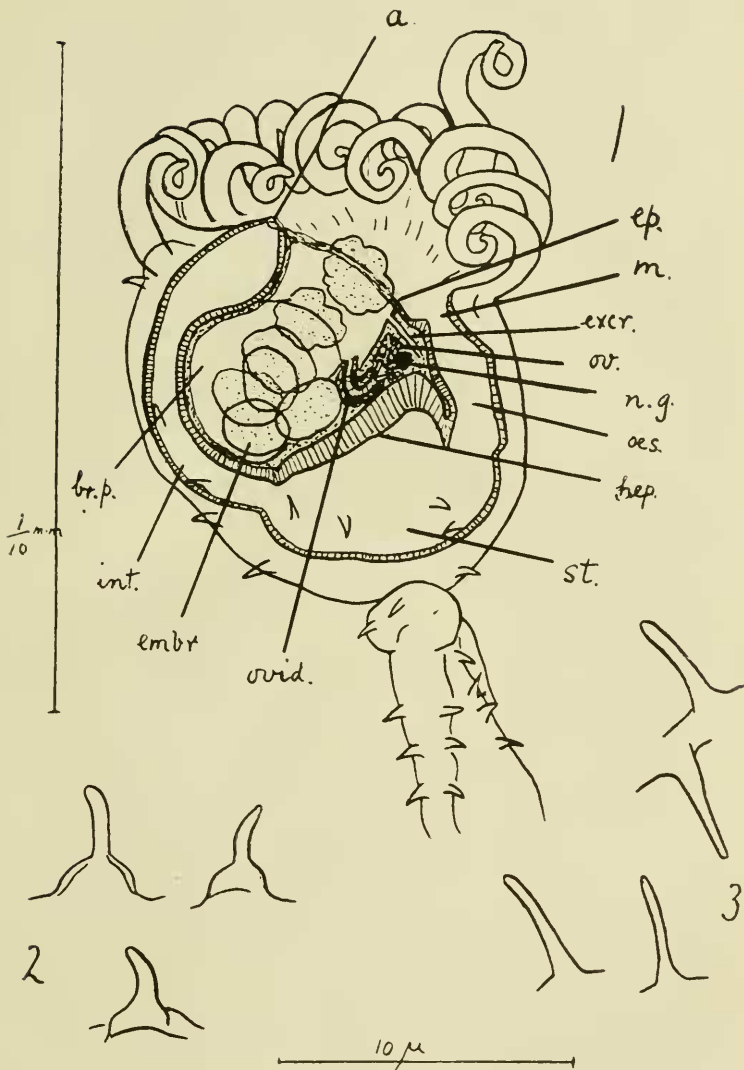


Fig. 14—1. *Predicellina whiteleggii*. Calyx—most of the anteriorly situated spines are not indicated in this figure. 2 and 3.—Spines from stalk of *P. whiteleggii* and *P. cernua*, respectively drawn to the same scale.

a., annus; br. p., brood pouch; embr., embryos; ep., epistome; excr., one of the excretory tubules; hep., "liver"; int., intestine; m., mouth; n.g., nerve ganglion; oes., oesophagus; ov., ovary; ovid., common oviduct; st., stomach.

The calyx of the latter differs from that of the former in being well supplied with spines, apparently irregularly distributed, generally abundant but sometimes less numerous. There is usually a fairly well-defined ring of them at about the level of the bases of the tentacles. In young calyces spines may be absent. Though *P. cernua* generally has a smooth calyx, yet a very spiny condition is known*, while Hincks† has figured some with a few scattered spines. The calyx of *P. whiteleggii* is narrower than that of *P. cernua*.

The text figure represents a camera lucida drawing of an adult embryo-bearing calyx—a mounted specimen. It is rather larger than the rest in our possession. The anatomy does not call for special comment, the position of the organs being indicated in the figure. The ganglion is only slightly bilobed. The two ovaries are relatively large and the common oviduct is a wide tube with thick walls.

The endoproct Polyzoa recorded from Australia are as follows:—

(1) *Pedicellina cernua* Whitelegge, 1889=*P. whiteleggii* Johnston and Walker, 1917, Sydney Harbour.

(2) *Pedicellinopsis fruticosa* Hincks (1884)—Port Phillip Heads, Victoria. In 1886, Busk reported on specimens collected by the Challenger in 150 fathoms, off Twofold Bay, N.S.W., and defined a genus *Ascopodaria* (p. 42, pl. 9-10), including Hincks' genus and species under it. It is under Busk's name of *Asc. fruticosa* that the animal has since been listed by Whitelegge (1889, p. 293) who recorded finding it among seaweed on ocean beaches in the vicinity of Sydney. Hedley (1915, p. 72) also mentioned its occurrence there. Some writers regard Busk's genus as a valid one, distinct from, though closely-related to, that erected by Hincks.

(3) ? *Loxosoma* sp., recorded by Whitelegge (p. 293) as occurring on a Sipunculid, *Phascolosoma australis* Keferst, in Port Jackson.

*Johnston. Brit. Hydr. Zoophytes. vol. 2. 1847. pl. 70, fig. 5.

†Brit. Polyzoa, p. 566. and pl. 81, fig. 2.

(4) *Loxosoma* sp., found by Goddard (1909, p. 725), on a marine leech, *Pontobdella australiensis* Godd. No locality is mentioned, but presumably it was collected in New South Wales.

(5) *Loxosoma* sp. Macdonald (1876, p. 211) drew attention to and figured certain structures associated with two species of marine leeches (*Pontobdella* and a gill-bearing form) from Shark Bay, West Australia. He regarded them as spermatophores and noted that those found on the *Pontobdella* were different to those occurring on the other leech. Goddard (1909) referred to Macdonald's discovery and showed that the structures seen by him were really two different species of an endoproct polyzoon, probably *Loxosoma*, infesting *Pontobdella australiensis* and *Branchellion* sp. respectively, the former belonging to the same species (No. 4) as that examined by Goddard.

LITERATURE.

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